AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): A composite of ~~an~~ a worked aluminum material and a synthetic resin molding so constructed ~~within a mold~~ that the ~~injected~~ synthetic resin molding is coupled with an anodic oxidation coating comprising innumerable pores about 85% or more of which having a diameter of from between 25 nm to about 90 nm[[,]] and said coating having a depth from between about 1μm to about 1.5μm[[,]] ~~and a tensile strength from between 20Kgf to at least 50Kgf~~ on the surface of the worked aluminum material, such that the synthetic resin molding is intruded in the innumerable pores thereof and bonded together over a part or the whole surfaces thereof as to have a tensile strength from between 20Kgf to at least 50Kgf.

Claims 2-8 (Canceled)

Claim 9 (Currently Amended): The composite of claim 1 produced by a process comprising:

(a) soaking an aluminum raw material in an electrolytic bath of phosphoric acid or sodium hydroxide, the surface(s) thereof are subjected to an anodic oxidization treatment by direct current electrolysis to form an anodic oxidation coating comprising innumerable pores having a diameter of from between 25 nm to about 90 nm on the surface(s) thereof, a depth from between about 1μm to about 1.5μm; and

(b) placing at least a portion of the worked aluminum material with the anodic oxidation coating in a cavity in a predetermined shape in a metal mold, and injecting molten synthetic resin toward the exposed surface of the anodic oxidation coating so that the molten

synthetic resin may be invaded into the innumerable pores having a diameter from between about 25 nm to about 90 nm and a depth from between about 1μm to about 1.5μm on the surface and also may be filled in the cavity under pressure to be molded, so that a tensile strength of the synthetic resin molding coupled with an anodic oxidation coating has between about 20Kgf and at least 50Kgf.

Claims 10 – 12 (Canceled)

Claim 13 (Previously Presented): A composite produced by applying an after-treatment process wherein after the composite is produced by the process of claim 9, the synthetic resin mold is so coupled with the anodic oxidation coating of the desired shaped aluminum material that part thereof is intruded in the innumerable pores, the remaining part of the anodic oxidation coating that is not overlapped with the synthetic resin molding is applied with paint so that a corrosion resistant paint coating is formed thereon.

Claim 14 – 18 (Canceled)

Claim 19 (Currently Amended): A composite produced by a process for producing a composite wherein a phosphoric acid or sodium hydride anodic treated anodic oxidation coating formed on at least one surface of ~~the~~ <u>a worked</u> aluminum material in ~~the~~ <u>a</u> shape of a plate or bent into two dimensions or three dimensions by press working, is placed in a jig containing a heating apparatus in such a manner that the anodic oxidation coating may be directed upwards, and a synthetic resin molding in a desired shape is placed on the anodic oxidation coating and is pressed from above, and ~~the~~ <u>a</u> contact portion of the synthetic resin

mold with the anodic oxidation coating surface is molten by the heating apparatus under ~~the~~ a condition that it is being contacted with the surface of the anodic oxidation coating under pressure, so that the molten resin is invaded into the innumerable pores of the anodic oxidation coating, and in this state, an electric power supply is then cut off and is cooled to be solidified.

Claim 20 (Canceled)

Claim 21 (Previously Presented): A composite produced by a process comprising the steps:

(a) forming an aluminum raw material into a tubular one by an extruder,

(b) applying an anodizing treatment to the tubular aluminum raw material so that innumerable pores having a diameter from between about 25 nm to about 90 nm and a depth from between about 1 μm to at least 1.5μm made open in the surface thereof may be formed, and

(c) jointing a tubular-formed synthetic resin molding having a desired thickness under pressure with the circumferential surface and along the length direction of the anodic oxidation coating of the tubular aluminum material by a co-extruding molding machine, so that a composite in which the tubular aluminum material and the tubular synthetic resin molding are strongly laminated integrally so that a tensile strength may have from between about 20Kgf to at least 50Kgf.

Claim 22 (Previously Presented): The composite of claim 9, wherein the electrolytic bath is phosphoric acid or sodium hydroxide bath.

Claim 23 (Previously Presented): The composite of claim 9, wherein the aluminum raw material is anodized in the phosphoric acid bath comprising 15-40% aqueous solutions of phosphoric acid in concentration and having a bath temperature in the range of 10-30°C and a direct current electrolysis is carried out for 5-25 minutes, at a voltage of 20-100V, at a current density of 0.5-2 A/dm^2, so that the anodic oxidation coating having the innumerable pores having a diameter of between about 30nm to about 90 nm and a depth from between about 1μm to about 1.5μm is formed.

Claim 24 (Previously Presented): The composite of claim 9, wherein the aluminum raw material is anodized in a bath comprising 0.05-0.3 mol aqueous solutions of sodium hydroxide, and having a bath temperature in the range of 10-30°C, and a direct current electrolysis is carried out for 5-25 minutes, at a voltage of 15-45V, at a current density of 0.5-3 A/dm^2, so that the anodic oxidation coating having the innumerable pores having a diameter of between 25 nm to about 90 nm and a depth from between about 1μm to about 1.5μm is formed.

Claim 25 (Previously Presented): The composite of claim 9, wherein the molten synthetic resin is injected into the cavity of the metal mold under a heated condition of the metal mold.

Claim 26 (Previously Presented): The composite of claim 9, wherein the aluminum raw material in the shape of a plate or a worked aluminum raw material bent into two or three dimensions by press working is used, and the synthetic resin mold is coupled with the partial or whole surface of the anodic oxidation coating thereof by injection molding.

Claim 27 (Previously Presented): The composite of claim 9, wherein a portion of a desired-shaped aluminum material formed with the anodic oxidation coating formed by the phosphoric acid or sodium hydride bath is inserted into a cavity of a metal mold for insertion molding, and in this condition, molten synthetic resin is injected into the cavity and part of the molten synthetic resin is invaded into the innumerable pores of the anodic oxidation coating and bonded together over a part or the whole surfaces thereof, and in this state is filled in the cavity under pressure to be molded.

Claim 28 (Previously Presented): The composite of claim 9 produced by a process comprising:

coupling the synthetic resin mold with the anodic oxidation coating of the desired shaped aluminum material so that part thereof is intruded in the innumerable pores, the remaining part of the anodic oxidation coating that is not overlapped with the synthetic resin molding is cleaned and is then subjected to an electrolysis using a sulfuric acid bath, so that a corrosion resistant coating of alumite is formed.

Claim 29 (Previously Presented): A composite of claim 9 produced by the process comprising:

coupling the synthetic resin mold with the anodic oxidation coating of the desired shaped aluminum material that part thereof is intruded in the innumerable pores, the remaining part of the anodic oxidation coating that is not overlapped with the synthetic resin molding is applied with paint so that a corrosion resistant paint coating is formed thereon;

the synthetic resin having the elastic modulus that is able to absorb the difference between the linear expansion of aluminum and that of synthetic resin caused by a sudden temperature change is used as the synthetic resin for forming a synthetic resin molding.

Claim 30 (Previously Presented): The composite of claim 1 produced by a process comprising:

(a) applying anodic oxidization treatment to both side surfaces of a plate-shaped aluminum raw material by a phosphoric acid or sodium hydroxide bath to form an anodic oxidation coating on each surface comprising innumerable pores having a diameter of between about 25 nm to about 90 nm and a depth from between about 1μm to about 1.5μm, is formed,

(b) forming a print coating on one side surface of both the anodic oxidation coatings of the anodic oxidization treated aluminum material,

(c) bending the same into second dimensions or third dimensions by press working, and

(d) placing a portion or whole of the worked aluminum material with the anodic oxidation coatings in a cavity having a predetermined shape made in a metal mold, and injecting molten synthetic resin toward the exposed part or whole surface of the anodic oxidation coating in the cavity, so that part of the molten synthetic resin is invaded into the innumerable pores open in the surface of the anodic oxidation coating and bonded together

over a part or the whole surfaces thereof and also is filled in the cavity under pressure to be molded.

Claim 31 (Previously Presented): The composite of claim 1 produced by the process comprising:

(a) forming a printed surface on one side surface of a plate-shaped aluminum raw material,

(b) bending the same into two dimensions or three dimensions by press working,

(c) applying an anodic oxidization treatment to the unprinted other side surface of the worked aluminum raw material by an electrolysis by a phosphoric acid or sodium hydroxide bath, so that an anodic oxidation coating composed of innumerable pores having a diameter of between about 25 nm to about 90 nm and a depth from between about 1μm to about 1.5μm, is formed, and

(d) placing the part or whole of the worked aluminum material with the anodic oxidation coatings in a predetermined shaped cavity of a metal mold, and injecting molten synthetic resin toward the exposed part or whole surface of the anodic oxidation coating in the cavity, so that part of the molten synthetic resin is invaded into the innumerable pores open in the surface of the anodic oxidation coating and bonded together over a part or the whole surfaces thereof and also is filled in the cavity under pressure to be molded.

Claim 32 (Previously Presented): The composite of claim 1 produced by the process comprising:

(a) forming a printed surface on one side surface of a plate-shaped aluminum raw material;

(b) applying an anodic oxidation treatment to the unprinted other side surface of the worked aluminum raw material by an electrolysis by a phosphoric acid or sodium hydroxide bath, so that an anodic oxidation coating composed of innumerable pores between about 25 nm to about 90 nm and a depth from between about 1μm to about 1.5μm, is formed,

(c) bending the same into two dimensions or three dimensions by press working,

(d) placing the part or whole of the worked aluminum material with the anodic oxidation coatings in a predetermined shaped cavity of a metal mold, and injecting molten synthetic resin toward the exposed part or whole of the anodic oxidation coating in the cavity, of that part of the molten synthetic resin is invaded into the innumerable pores open in the surface of the anodic oxidation coating and bonded together over a part or the whole surfaces thereof and also is filled in the cavity under pressure to be molded.

Claim 33 (Previously Presented): The composite of claim 1 produced by the process comprising: using a metal mold for injection molding provided with a heating apparatus surrounding a vertical passage connecting to a sprue in the metal mold for injection molding and a gate connecting to the lower end of the vertical.

Claim 34 (Previously Presented): The composite of claim 21, wherein the aluminum raw material is anodized in the phosphoric acid bath comprising 15-40% aqueous solutions of phosphoric acid in concentration and having a bath temperature in the range of 10-30°C, and a direct current electrolysis is carried out for 5-25 minutes, at a voltage of 20-100V, at a

current density of 0.5-2 A/dm^2, so that the anodic oxidation coating having the innumerable pores having a diameter of between about 30nm to about 90 nm and a depth from between about 1μm to about 1.5μm is formed.

Claim 35 (Previously Presented): The composite of claim 21, wherein the aluminum raw material is anodized in a bath comprising 0.05-0.3 mol aqueous solutions of sodium hydroxide, and having a bath temperature in the range of 10-30°C and a direct current electrolysis is carried out for 5-25 minutes, at a voltage of 15-45V, at a current density of 0.5-3 A/dm^2, so that the anodic oxidation coating having the innumerable pores having a diameter of between 25 nm to about 90 nm and a depth from between about 1μm to about 1.5μm is formed.

Claim 36 (Previously Presented): The composite of claim 21, wherein the aluminum raw material in the shape of a plate or a worked aluminum raw material bent into two or three dimensions by press working is used, and the synthetic resin mold is coupled with the partial or whole surface of the anodic oxidation coating thereof by injection molding.